SECTION VI.—WEATHER AND DATA FOR THE MONTH.

THE WEATHER OF THE MONTH.

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Pressure.—The distribution of the mean atmospheric pressure over the United States and Canada and the prevailing directions of the winds are graphically shown on chart VII, while the average values for the month at the several stations, with the departures from the normal, are shown in Tables I and III.

For the month as a whole, barometric pressure was above the normal over practically the entire country, as in the preceding month, only limited areas near the central and northern Pacific coast showing values near or slightly below the normal. The positive departures were quite marked and uniform over all districts east of the Rocky Mountains, being somewhat more pronounced, however, in the central and southern sections.

At the beginning of the month an extensive area of moderately high pressure overspread all districts from the Rocky Mountains eastward, but this gave way about the 3d to relatively low pressure and unsettled conditions, which continued over the more eastern districts till about the 8th. From the 8th to the 12th pressure was again high over the central and southern States, with lower barometer readings to the northward, and from the 14th to the 24th rather marked high pressure again obtained over practically all eastern sections of the country. From the last-named date to the 28th a storm area passed eastward over the northern tier of States and the southern Canadian provinces, and at the same time low pressure prevailed over the Plateau and Rocky Mountain regions. The month closed with relatively low pressure over the more northern districts and with high pressure to the southward.

The distribution of the highs and lows for the month was favorable for the occurrence of southerly winds as the prevailing direction over the great central valleys and the Plains region, and of northerly or northwesterly winds over the Middle and North Atlantic States, while the prevailing directions were variable in the South Atlantic States and from the Rocky Mountain region westward to the Pacific coast.

Temperature.—The cool weather over the northern districts during the latter part of April, referred to in the last report, gave way to warmer weather about the beginning of the present month, and after the first few days warm weather prevailed over all central and eastern sections, but cool weather obtained in the far Northwest during the first week, the minimum temperature falling below freezing at many points in that region and to near 20° in parts of Wyoming and to the northward. This cool area advanced to the central valleys and thence to the Gulf States by the 9th, but with diminished tendency to low temperatures, except over the more northern districts, where it continued cold, with some frost. Following the cold area warmer weather overspread the districts between the Rocky Mountains and the Mississippi River, and by the 10th temperatures had risen to normal or above over practically all parts of the country, save along the northern border from the Great Lakes westward.

About the 11th unseasonably cold weather advanced from the Canadian Northwest, with minimum temperatures below freezing and with frosts at many points in the northern Plains and Mountain districts. During the next few days the cold area overspread the central valleys and eastern States, and by the 15th or 16th frost had extended into the Lake region, northern New York, and the interior of New England. Following this cool spell there was a tendency to warmer weather over most districts, and by the 26th warm weather was general over all sections from the Plains region eastward, but some sharp falls in temperature had occurred in the Rocky Mountain and Plateau regions, with frost reported from exposed points. During the next few days the cool area moved over the more northern districts to New England, but the weather continued warm over the southeast, the maximum temperatures over much of the east Gulf States, and on the 29th equaling or slightly exceeding any previous records for the last decade of May, and reaching 100° at points in Georgia.

The mean temperature for the month as a whole was above the normal in all districts, save in Texas and Oklahoma and portions of the adjoining States and in southern California. The greatest plus departures occurred in the central and northern Plateau districts, the west Lake region, and along the Atlantic coast from Virginia northward to southern New England. Over the greater part of the country the departures, however, were not marked, the monthly mean temperatures being near the normal.

Precipitation.—The month opened with unsettled, rainy conditions in the Southwest, including the central portions of the Rocky Mountain and Plateau regions. During the first week the rain area extended eastward and northeastward to the Atlantic coast, and by the end rain had occurred over practically all eastern districts, with some snow in the more northern portions. The precipitation was heavy in portions of the central Rocky Mountain and Plains regions and the West Gulf States.

From the 10th to the 13th a storm area moved from the central mountain districts eastward to the Atlantic coast, accompanied by some heavy rains in portions of the upper Mississippi Valley and the Lake region, and by the latter date some heavy falls had again occurred in Texas. From the middle of the month till about the 25th generally fair weather obtained over practically all eastern districts, which were under the influence of high barometric pressure, but showers were frequent in the Southwest and in portions of the Plains States and upper Mississippi Valley, with some further heavy falls in those districts. From the 25th to the end of the month unsettled showery conditions prevailed over most eastern sections, save in the east Gulf and Middle and South Atlantic States, and portions of the Ohio and middle Mississippi Valleys, with some still further heavy falls in the Plains States, including Texas, the upper Mississippi Valley, and the Lake region.

The precipitation for the month as a whole was heavy in most of Texas, where the monthly amounts ranged from 6 to 10 inches, and also in Oklahoma, western Kansas, and the eastern portions of Colorado and New Mexico, where they ranged from 4 to 6 inches or above. The amounts were also generous, ranging from 4 to 6 inches or more in the Lake region and the upper Mississippi and Missouri Valleys, while amounts ranging from 2 to 4 inches were received over practically all portions of the Plains region not previously mentioned. From 1 to 2 inches occurred in much of the Rocky Mountain and Plateau regions, but in the central and southern portions of the plateau and thence westward to the Pacific coast the amounts were quite generally less than 1 inch, but along the north Pacific coast they were slightly in excess of 2 inches. In the Atlantic coast districts, the central and east Gulf States, most of the Ohio and portions of the middle Mississippi Valleys the precipitation for the month was markedly deficient, less than 1 inch occurring over large portions of these districts, resulting in severe drought.

GENERAL SUMMARY.

The weather of the month was characterized by the sustained absence of rainfall with severe droughty conditions in the Southeastern States and portions of the Ohio and middle Mississippi valleys, and the excessive moisture received in the Southwest, especially Texas and Oklahoma. The month developed one of the severest spring droughts ever known in portions of the South Atlantic and East Gulf States, and other large areas of the droughty region suffered severely from lack of sufficient moisture, resulting in the delaying of farming operations and poor germination of such crops as could be planted. On the other hand, the excessive moisture in Texas and Oklahoma delayed field work and prevented proper cultivation of the soil.

In the principal corn and winter wheat growing States conditions were favorable in the States to westward of the Mississippi River and over the northern portions of the belt to the eastward, but dry weather prevailed in the southern portion of the eastern belt. In the spring-wheat region the weather was generally favorable and all vegetation made rapid growth.

Over the mountain and plateau districts of the West the weather was generally favorable and vegetation made satisfactory growth, but by the close of the month some dry-farming districts were needing rain. In the Pacific coast States the weather was favorable for all farming operations.

Average accumulated departures for May, 1914.

Districts.	Temperature.			Precipitation.			Cloudiness.		Relative humidity.	
	General mean for the current month.	Departure for the current month.	Accumulated departure since Jan. 1.	General mean for the current month.	Departure for the current month.	Accumulated departure since Jan. 1.	General mean for the current month.	Departure from the normal.	General mean for the current month.	Departure from the normal.
	° F.	° F.	° F.	Inches	Inches	Inches			P. ct.	P. ct.
New England	56.6	+2.0	− 5.9	2.08	−1.30	−1.10	5.1	−0.4	71	− 7
Middle Atlantic	64.4	+2.9	− 1.9	2.00	−1.50	−1.80	4.1	−0.9	61	−11
South Atlantic	71.1	+1.3	− 0.4	0.75	−3.00	−6.10	3.6	−0.9	64	−10
Florida Peninsula	77.9	+0.2	− 4.2	2.09	−2.20	−2.10	5.8	+1.4	76	0
East Gulf	72.9	+0.6	− 2.7	0.69	−2.80	−4.40	4.3	−0.4	62	− 9
West Gulf	72.0	−0.9	− 1.2	5.53	−1.40	−2.40	6.2	−1.4	78	+ 3
Ohio Valley and Tennessee	66.2	+1.1	− 2.5	1.74	−1.90	−5.00	4.1	−0.9	61	− 7
Lower Lakes	59.2	+1.7	− 5.3	3.62	+0.50	+1.50	4.3	−1.1	67	− 4
Upper Lakes	56.3	+3.7	+ 1.4	3.28	−0.20	−0.50	4.5	−1.0	68	− 4
North Dakota	55.6	+1.4	+11.1	1.92	−0.60	−1.30	4.2	−1.3	64	+ 2
Upper Mississippi Valley	64.3	+2.3	+ 6.8	2.68	−1.50	−3.50	4.4	−0.9	63	− 5
Missouri Valley	63.1	+1.1	+10.7	3.03	−1.20	−2.30	5.1	0.0	65	0
Northern slope	54.0	+1.0	+14.0	1.42	−0.70	−1.50	5.1	−0.4	62	+ 4
Middle slope	62.6	−0.2	+ 9.5	3.60	−0.20	−1.20	5.6	+0.7	68	+ 7
Southern slope	68.7	−2.0	+ 5.3	6.16	+3.30	+1.40	5.8	+1.4	70	+ 9
Southern Plateau	65.6	−0.4	+ 4.7	0.77	+0.50	−0.10	3.2	+0.5	42	+10
Middle Plateau	59.1	+2.9	+11.0	0.69	−0.50	−0.10	4.4	+0.3	46	0
Northern Plateau	59.4	+3.5	+17.7	0.91	−0.80	−1.20	4.5	+0.6	53	− 3
North Pacific	55.7	+2.5	+14.5	1.17	−1.40	+0.20	4.9	−1.4	74	− 2
Middle Pacific	58.3	+0.7	+10.1	0.50	−0.80	−0.80	4.6	+0.6	72	+ 1
South Pacific	61.8	+0.2	+14.8	0.14	−0.40	+3.80	5.2	+1.1	72	+ 3

Maximum wind velocities, May, 1914.

Stations.	Date.	Velocity.	Direction.	Stations.	Date.	Velocity.	Direction.
		mis./hr.				mis./hr.	
Buffalo, N. Y.	26	54	sw.	New York, N. Y.	27	90	nw.
Do.	27	58	sw.	Pittsburgh, Pa.	11	68	nw.
Corpus Christi, Tex.	3	52	e.	Do.	12	57	nw.
Duluth, Minn.	25	56	sw.	Do.	27	57	w.
El Paso, Tex.	29	60	e.	Point Reyes Light, Cal.	27	65	nw.
Hatteras, N. C.	5	55	w.	Savannah, Ga.	7	70	w.
Houghton, Mich.	25	50	nw.	Sioux City, Iowa.	23	51	w.
Louisville, Ky.	7	60	w.	Syracuse, N. Y.	27	54	sw.
Mt. Weather, Va.	5	52	nw.	Valentine, Nebr.	25	52	sw.
New York, N. Y.	1	50	nw..				
Do.	23	51	nw.				

CONDENSED CLIMATOLOGICAL SUMMARY.

In the following table are given for the various sections of the climatological service of the Weather Bureau the monthly average temperature and total rainfall; the stations reporting the highest and lowest temperatures with dates of occurrence; the stations reporting the greatest and least total precipitation; and other data, as indicated by the several headings.

The mean temperature for each section, the highest and lowest temperatures, the average precipitation, and the greatest and least monthly amounts are found by using all trustworthy records available.

The mean departures from normal temperatures and precipitation are based only on records from stations that have 10 or more years of observations. Of course the number of such records is smaller than the total number of stations.